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REMARKS

This response is intended as a full and complete response to the final Office Action mailed May 19, 2005. In the Office Action, the Examiner notes that claims 1-30 are pending, of which claims 1-30 are rejected are objected to. By this response, all claims remain unamended.

In view of the following discussion, Applicants submit that none of the claims now pending in the application are obvious under the provisions of 35 U.S.C. §103. Thus, Applicants believe that all of these claims are now in allowable form.

It is to be understood that Applicants do not acquiesce to the Examiner's characterizations of the art of record or to Applicants' subject matter recited in the pending claims. Further, Applicants are not acquiescing to the Examiner's statements as to the applicability of the art of record to the pending claims by filing the instant responsive amendments.

REJECTIONS

35 U.S.C. §103

Claims 1-7, 9-20 and 22-29

The Examiner has rejected claims 1-7, 9-20 and 22-29 under 35 U.S.C. §103(a) as being unpatentable over Klemets et al. (US230010013068A1, hereinafter "Klemets") in view of Towell et al. (US006647411B2, hereinafter "Towell") and in further view of the Examiners' Official Notice. Applicants respectfully traverse the rejection.

Applicants' independent claims 1, 14 and 27 recite:

1. "Method for preprocessing content for a stream caching server in an interactive information distribution system, said method comprising:
retrieving content in a first subscriber terminal;
transcoding said retrieved content into a plurality of MPEG packets;
uploading said transcoded content to a http server coupled to an access network;
encapsulating said transcoded content in accordance to an Internet Protocol (IP) format supported by said stream caching server; and

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transmitting said encapsulated content for storage in said stream caching server." (emphasis added).

14. "A system for preprocessing content for a stream caching server in an interactive information distribution system, said system comprising:

a first subscriber terminal for receiving content, transcoding said content into a plurality of MPEG packets, and uploading said transcoded content to an access network; and

a digital link for encapsulating said transcoded content in accordance to an Internet Protocol (IP) supported by said stream caching server, and transmitting said encapsulated content to said stream caching server." (emphasis added).

27. "A method for use in a client server system, comprising:
loading, into a client, content local to said client;
loading into said client as necessary, a transcoding application from a server of said server system, said transcoding application operative to transcode or encode content into a desired player format;
transcoding said loaded content into said desired player format;
encapsulating said transcoded content into a desired transport format; and
uploading said encapsulated content to said server system."

The present invention as claimed is directed towards uploading transcoded MPEG packets from a subscriber terminal to an access network and encapsulating those packets into IP packets for transmitting and storing at the server system.

The test under 35 U.S.C. §103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather the test is whether the claimed invention, considered as a whole, would have been obvious. Jones v. Hardy, 110 USPQ 1021, 1024 (Fed. Cir. 1984) (emphasis added). Moreover, the invention as a whole is not restricted to the specific subject matter claimed, but also embraces its properties and the problem it solves. In re Wright, 6 USPQ 2d 1959, 1961 (Fed. Cir. 1988) (emphasis added). The Klemets and Towell references alone or in combination fail to teach or suggest Applicants' invention as a whole.

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In particular, none of the references alone or in combination disclose, teach or suggest encapsulating said transcoded content in accordance to an Internet Protocol (IP) supported by said stream caching server.

The Klemets reference is directed towards the production of interleaved multimedia stream. The production station captures may provide an analog video stream, which is converted to digital video stream and may be compressed (See. Fig. 5). It does not disclose teach or suggest "encapsulating said transcoded content in accordance to an Internet Protocol (IP) supported by said stream caching server." Specifically, Klemets does not disclose, teach or suggest encapsulating a plurality of MPEG packets into IP packets. Klemets discloses that the capture module will format the digitized video stream into a format suitable for transmission on the network 290, i.e. POTS modem, ISDN or Ethernet (See page 3, [0046]). Because the computer network does not have to be the internet, it is not inherent that Klemets discloses IP packets. Furthermore, Klemets is silent on encapsulation of packets. Because, Klemets does not disclose MPEG packets, encapsulation of packets, and IP packets, it does not disclose teach or suggest "encapsulating said transcoded content in accordance to an Internet Protocol (IP) supported by said stream caching server." In response to the Examiner, Klemets does not disclose http server. The http server is not equivalent to a stream server. The http server transmits the applet to the terminal; it receives the uploaded preprocessed content from the terminal; it transmits the transcoded content upstream; etc. In short, it is part of a system that prepares the content for storage at the stream server. On the other hand, the stream server streams its content downstream to the terminals. Therefore, Klemets does not disclose, teach or suggest uploading to an http server.

The Examiner's asserts through an Official Notice that "it is well known to compress data in a plurality of MPEG packets or transcode content into a plurality of MPEG packets." Applicant hereby traverses the Official Notice. MPEG packets are known. However, compressing data into MPEG packets and transcoding content into a plurality of MPEG packets in an interactive information distribution system of the present application may not well known within the specific art of the present invention as recited in the pending claims. Therefore, the Examiner's Official notice is improper.

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The Examiner's Official Notice merely shows that MPEG packets exist. Klemets and the official notice still does not disclose, teach or suggest "encapsulating said transcoded content in accordance to an Internet Protocol (IP) supported by said stream caching server." In response to the Examiner, there is no reason why just because MPEG format is well known that Klemets would "transcode" the contents into MPEG format. The format of the network such as the exemplary format of FIG. 5 will already allow the transportation of the packets. There is no motivation anywhere for including the extra transcoding step because this extra step would serve no purpose in the invention of Klemets while increasing delay and cost to the system.

Furthermore, the Towell reference fails to bridge the substantial gap. In particular, the Towell reference is directed towards a secure cached subscription system. A content provider speculatively downloads information into the caching device based on user's data. Viewing data may be uploaded, but no content is uploaded to the caching server. It is silent on uploading content. Therefore, it does not disclose, teach or suggest "encapsulating said transcoded content in accordance to an Internet Protocol (IP) supported by said stream caching server."

There is no motivation to combine because the references are directed to different technologies and are trying to solve different problems. The present invention is trying to allow users to upload content for storage for future streaming at different types of access networks. Klemets is trying to allow clients without stream servers to be delivered synchronous video, audio and annotated streams. Towell et al. is trying to find a cost effective way of providing video on demand to the clients. In addition, there is no motivation for either of Klemets and Towell to use MPEG packets. There is no desire, suggestion or motivation mentioned anywhere to combine any of the references to allow the users to upload content for storage for future streaming at different types of access networks.

Even if the three references could somehow be operably combined, the combination would merely disclose uploading the content to a content provider, and streaming the uploaded content to another subscriber station. Nowhere in the combined references is there any teaching or suggestion of "uploading said transcoded content to http server coupled to an access network," and "transmitting the

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encapsulated content for storage in said stream caching server." That is, Applicants' invention first performs transcoding on the content, then uploads the transcoded content to an http server, encapsulates the transcoded content in accordance with an internet protocol format supported by the stream caching server, and then transmits the encapsulated content to the caching server for storage. The steps of transcoding the received content, uploading the transcoded content to an http server, encapsulating the transcoded content in accordance with an IP format supported by a stream caching server, and transmitting the encapsulated content to the stream caching server are not taught or suggested by the cited references. Therefore, the combination of Klemets, the Examiner's Official Notice, and Towell fail to teach or suggest Applicants' invention as a whole.

As such, Applicants submit that independent claims 1, 14, and 27 are not obvious and fully satisfy the requirements under 35 U.S.C. §103 and are patentable thereunder. Furthermore, claims 2-7, 9-13, 15-20, 22-26 and 28-29 depend directly or indirectly from independent claims 1 and 14 and 27 and recite additional features thereof. As such and for at least the same reasons as discussed above, Applicants submit that these dependent claims are not obvious and fully satisfy the requirements of 35 U.S.C. §103 and are patentable thereunder. Therefore, Applicants respectfully submit that the Examiner's rejection of claims 1-7, 9-20 and 22-29 should be withdrawn.

Claims 8, 21 and 30

The Examiner has rejected claims 8, 21 and 30 under 35 U.S.C. §103(a) as being unpatentable over Klemets in view of Towell as applied to claims 1-7, 9-20 and 22-29 above, and further in view of Mimura et al. (US006557031B1, hereinafter "Mimura"). Applicants respectfully traverse the rejection.

As discussed above, the Klemets and Towell references and the Examiner's Official Notice alone or in combination fail to teach or suggest Applicants' invention as a whole, as disclosed and claimed in Applicants independent claims 1, 14, and 27. Furthermore, the Mimura reference fails to bridge the substantial gap between the Klemets and Towell references and the Examiner's Official Notice, and Applicants' invention.

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In particular, the Mimura reference discloses

"For the standard of an MPEG video transmission format, Request for Comment No. 2038: "RTP Payload Format for MPEG1/MPEG2 Video" (hereinafter abbreviated to RFC 2038) has standardized a transmission method and a packet encapsulation system. It is prescribed by RFC 2038 that the transmission should be made with ES, TS or PS of MPEG utilized as the format of a packet to be transmitted and that in order to prevent the degradation of resolution from being caused by transmission delay, the transmission should be made in accordance with "RTP: A Transport Protocol for Real-Time Applications" (hereinafter abbreviated to RTP) specified by RFC 1889. It is prescribed that an RTP packet should be stored in a packet based on a user datagram protocol (hereinafter abbreviated to UDP) and this UDP packet should be transmitted by use of the Internet Protocol packet (hereinafter abbreviated to IP packet). With the prior art described above, it is possible to transmit MPEG video data in such a manner that MPEG-TS packets are used in the CATV network while IP packets are used in the Internet." (See Mimura, Column 2, lines 28-54).

Even if the four references could somehow be operably combined, the combination would merely disclose encoding content stored at a production station, encapsulating the MPEG packets within an RTP packet of an IP packet, and sending such IP packets and encoded content to a stream server. Nowhere is there any teaching or suggestion in the combined references of "transcoding said retrieved content," "uploading the transcoded content to an http server," "encapsulating the transcoded content in accordance with an IP format supported by said stream caching server," and "transmitting the encapsulated content for storage in said stream caching server." Therefore, the combined references fail to teach or suggest Applicants' invention as a whole.

Therefore, for at least the reasons discussed above with respect to Applicants' independent claims 1, 14 and 27, Applicants submit that claims 8, 21 and 30 which depend directly or indirectly from Applicants' independent claims 1, 14 and 27 are patentable under 35 U.S.C. §103 over Klemets in view of Towell and further in view of Mimura. Therefore, Applicants respectfully request that the Examiner's rejection be withdrawn.

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CONCLUSION

Thus, Applicants submit that all of the claims presently in the application are non-obvious and patentable under the provisions of 35 U.S.C. §103. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Eamon J. Wall, Esq. at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

Dated: 7/15/05


Eamon J. Wall
Registration No. 39,414
Attorney for Applicant

MOSER, PATTERSON & SHERIDAN, LLP
595 Shrewsbury Avenue, Suite 100
Shrewsbury, New Jersey 07702
Telephone: 732-530-9404
Facsimile: 732-530-9808

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